
	Qualification Test Record (QTR) NORSOK M-650				QTR. No.: F51-Hollow Forging
					Rev. No.:00
Manufacturer name/address/ Web page:	Brück GmbH, Brückstr. 16, 66131 Ensheim - Germany www.bruck-forgings.com				
Reference standard	NORSOK M-650, Edition 4				
Material designation and MDS No.:	ASTM A182 Gr. F51; MDS D44, Revision 4.				
Manufacturing Summary doc. No.:	MS-F51-Hollow Forging				Rev. No.:01
Products and manufacturing process(es):	Hollow Forging, produced by backward extrusion, without subsequent ring rolling in excess of 50 mm change in inner diameter				
Mandatory conditions and sub-contractors:	Heat treatment furnaces No. 5 and 6 Quench basin No. 4				
Other information:	Present qualification is based on VA-QS-5130 Rev.01 i.e. Murakami etchant (No. 98, ASTM E 407). For all future orders VA-QS-5130 Rev. 02 i.e. 20% NaON (No.220) will be used, unless otherwise agreed with the customer.				
Qualification expires:	21.01.2018				
Tested and qualified thickness and weight					
Products and manufacturing process(es):	Test record No.	Tested thickness mm	Qualified thickness mm	Test piece weight kg	Qualified weight kg
Hollow Forgings	E 3387	195	195	1163	All
Qualification/acceptance signatures					
Manufacturer:	Prepared by/Date: D. Mohr, 18.12.2012	Checked by/Date: D. Brud, 18.12.2012			
The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials. This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650.					
Qualified/accepted by (company name/address):  Aker Solutions Aker Engineering & Technology AS Reg.nr. 879 817 552			Signature/Date: 21/01/2013 